



UNIVERSITI PUTRA MALAYSIA

**COMMUNITY PARTICIPATION IN FOREST MANAGEMENT
PROGRAMS IN AZAD JAMMU KASHMIR AND HAZARA, PAKISTAN**

**MAMOONA WALI MUHAMMAD
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**COMMUNITY PARTICIPATION IN FOREST MANAGEMENT
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By

MAMOONA WALI MUHAMMAD

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

December 2009



Especially Dedicated to

My Father - - - Khawaja Wali Muhammad(Late)

*A forester who always shared my love of learning for
forestry and I gave his sacrifice on the very first
mile stone of road to PhD*

My Mother - - - My Paradise

My Husband - - - My Love

My Brothers and Sisters & their better halves

My Father-in-law & Mother-in-law

All My Students - - - My Asset

&

Maaha & Sahar - - - My Hope

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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December 2009

Chairman: Associate Professor Rusli Bin Mohd, PhD

Faculty : Forestry

Participatory forest management (PFM) initiatives have been in place in Pakistan for almost three decades, but apparently there have not been any visible impacts. The goal of this study was to evaluate two participatory forest management (PFM) programs, namely Integrated Land Management (ILM) and Participatory Watershed Management (PWSM), by assessing the levels of participation, factors influencing participation and the impacts of these programs on the socioeconomic conditions of local people and forest/watershed resource development.

A multistage random sampling technique was applied to select units of analysis, households (respondents). The total sample drawn was 1,817 units, 1,479 from the *program* sample group and 338 from the *no-program* group. A structured questionnaire was used in face to face interviews to collect research data. However, qualitative data collected through informal discussions, group meetings, and focus

groups were used to subjectively support the results of the quantitative data. The social, economic and forest resources impacts were assessed using different statistical analyses. The levels of participation of participants, forms of participation with reference to programs, and socio-demographic characteristics of participants and non-participants were measured using a three dimensional framework and Participants' Participation Index (PPI).

The study found that the anticipated objective, “to attain high level of peoples’ participation in the forestry programs”, has not optimally been accomplished. The majority of participants have not participated in all the program activities designed at four different levels of participation. Their participation was overall passive in both the PFM programs. In terms of socio-demographic characteristics of participants’ landholding size ($p=0.012$) is an important factor in predicting who will participate in PFM. The other statistically significant factors include family sizes ($p=0.041$), source of secondary occupation ($p=0.000$) and levels of household income ($p=0.000$). The people were not given access to power in designing the projects according to their needs. Both the programs need to re-orientate their approaches toward making PFM better serve the needs of the local people.

The program had positive socio-economic impacts in terms of increase in the household income of the participants ($p=0.027$) and employment generation within program ($p=0.001$). The programs have not produced significant social impacts with regard to training opportunities ($p=0.377$).

Both the programs should be focused on delivering appropriate training courses, people empowerment and strengthening local institutions.

Likewise, the results on reforestation activities indicated no significant differences ($p=0.231$) between *program* and *no-program* areas, nor between participants and non-participants ($p=0.128$), even though more forest trees were planted under PWSMP. The participants planted more trees than non-participants. The programs succeeded in getting significant involvement ($p=0.000$) of people in forest protection activities. These two accomplishments serve the forest management and development aims of the programs, but do not materially improve the livelihood of the people at this time.

The PFM programs under study have not optimally achieved their desired objectives due to strategic and policy limitations in design and the implementation approach regarding people's participation. But, such programs can achieve substantial success through the participation of local people at all levels in forest management.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia bagi memenuhi keperluan Ijazah Doktor Falsafah

**PENGLIBATAN PENDUDUK DI DALAM PROGRAM PENGURUSAN
HUTAN DI DAERAH AZAD JAMMU KASHMIR DAN HAZARA,
PAKISTAN**

Oleh

MAMOONA WALI MUHAMMAD

Disember 2009

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Pengurusan hutan secara penglibatan telah di amalkan di Pakistan lebih kurang tiga dekad, tetapi sehingga kini impaknya adalah tidak jelas. Matlamat kajian ini adalah untuk menilai program pengurusan hutan secara penglibatan, iaitu Pengurusan Tanah Bersepadu (Integrated Land Management – ILM) dan Program Pengurusan Tadahan Hujan Secara Penglibatan (Participatory Watershed Management - PWSM), melalui penilaian ke atas tahap penglibatan, faktor yang mempengaruhi penglibatan dan impak program ke atas kedudukan sosioekonomi penduduk tempatan dan pembangunan sumber hutan.

Teknik persampelan pelbagai peringkat telah digunakan untuk memilih unit analisis, isirumah (responden). Jumlah sampel adalah sebanyak 1,817 unit, di mana 1,479 daripada kawasan yang terlibat dengan program dan 338 daripada kawasan yang tidak dalam program. Soalselidik berstruktur telah digunakan dalam temubual bagi pengumpulan data kajian. Walau bagaimanapun, data kualitatif dikumpulkan melalui perbincangan tidak formal, perjumpaan kelompok, dan perbincangan berfokus

kelompok juga digunakan bagi menyokong hasil kajian daripada data kuantitatif. Impak sosial, ekonomi dan sumber hutan telah dinilai menggunakan analisis statistik yang berbeza-beza. Tahap penglibatan peserta, bentuk penglibatan dengan merujuk kepada program, dan ciri-ciri sosiodemografi peserta dan bukan peserta telah diukur menggunakan rangka kerja tiga dimensi dan Indek Penglibatan Peserta (Participants' Participation Index –PPI).

Kajian mendapati bahawa objektif yang diharapkan daripada program, “untuk mencapai tahap tinggi dalam penglibatan penduduk dalam program perhutanan”, adalah belum dicapai secara optima. Majoriti daripada peserta belum lagi terlibat dalam semua aktiviti program yang disusun berdasarkan kepada empat tahap penglibatan yang berbeza. Secara keseluruhannya penglibatan mereka adalah pasif dalam kedua-dua program PFM. Dari segi ciri-ciri demografi peserta yang berkaitan dengan saiz pemilikan tanah ($p=0.012$) merupakan faktor penting dalam meramalkan siapa yang akan terlibat dalam PFM. Faktor lain yang signifikan dari segi statistik adalah termasuk saiz keluarga ($p=0.041$), sumber pekerjaan sekunder ($p=0.000$) dan tahap pendapatan isirumah ($p=0.000$). Penduduk telah tidak diberikan akses terhadap kuasa untuk merekabentuk projek sebagaimana mengikut keperluan mereka. Kedua-dua program memerlukan orientasi semula pendekatan mereka terhadap menjadikan PFM lebih baik dalam memenuhi keperluan penduduk tempatan.

Program ini mempunyai impak sosioekonomi positif dari segi peningkatan dalam pendapatan isirumah peserta ($p=0.027$) dan penjanaan pendapatan dalam program ($p=0.001$). Walau bagaimanapun program ini tidak menghasilkan impak sosial signifikan yang berkaitan dengan peluang latihan ($p=0.377$). Kedua-dua program

seharusnya memberikan fokus kepada pemberian kursus latihan yang sesuai, pendayaupayaan penduduk setempat dan pengukuhan institusi tempatan.

Begitu juga, hasil kajian ke atas aktiviti penghutan semula (reforestation) memperlihatkan tidak terdapat perbezaan ($p=0.231$) antara kawasan yang ada program dengan kawasan yang tiada program, dan juga antara peserta dengan bukan-peserta ($p=0.128$), walaupun lebih banyak pokok hutan ditanam di PWSM. Peserta telah menanam lebih banyak pokok berbanding dengan bukan-peserta. Program ini telah berjaya dalam memperolehi penglibatan ($p=0.000$) penduduk dalam aktiviti perlindungan. Dua pencapaian ini dapat memenuhi matlamat program pengurusan dan pembangunan hutan, tetapi tidak memperbaiki kehidupan material penduduk pada masa ini.

Program PFM yang dikaji tidak mencapai objektif yang dihasratkan secara optima akibat batasan dasar dan strategi dalam rekabentuk dan pendekatan pelaksanaan yang berkaitan dengan penglibatan penduduk. Pada hakikatnya program seperti ini mampu mencapai kejayaan besar melalui penglibatan penduduk setempat di dalam pengurusan hutan.

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Mamoona Wali Muhammad
UPM, December 2009



I certify that an Examination Committee has met on 8th December, 2009 to conduct the final examination of Mamoonah Wali Muhammad on her Doctor of Philosophy thesis entitled “People’s Participation in Participatory Forest Management Programs in Azad Jammu Kashmir and Hazara’s Districts of Pakistan” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.



MAMOONA WALI MUHAMMAD

Date: December 2009

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AHKCRD	Akhtar Hameed Khan Centre for Rural Development, Islamabad
AJK	Azad Jammu and Kashmir, Pakistan
CBFM	Community Based Forest Management
CBNRM	Community Based Natural Resource Management
CBS	Central Bureau of Statistic, Pakistan
CCF	Chief Conservator of Forests
CF	Community Forestry
CFUG	Community Forestry User Group
CO	Community Organization
DFO	Divisional Forest Officer
FAO	Food and Agriculture Organization
FBAs	Forest or Forest Resource Based Activities
FD	Forest Department
GOAJK	Government of AJK
GONWFP	Government of North West Frontier Province , Pakistan
GOP	Government of Pakistan
hh	Households
HRD	Human Resource Development
IGAs	Income Generation Activities
IGF	Inspector General Forests, Ministry of Environment, Pakistan
ILM	Integrated Land Management
ILMP	Integrated Land Management Program , AJK, Pakistan
JFM	Joint Forest Management

LFMCs	Local Forest Management Committees
LPG	Liquefied Petroleum Gas
MHDC	Mahboob-Ul-Haq Human Development Centre, Pakistan
NA	Not Applicable
NGO	Non Governmental Organization
NPT	Non Participants
NTFP	Non Timber/ Wood Forest Products
NRM	Natural Resource Management
NWFP	North West Frontier Province , Pakistan
PD	Project Director
PFI	Pakistan Forest Institute, Peshawar
PFM	Participatory Forest Management
PMU	Program Management Unit
PPI	Participants' Participation Index
PRFC-ILM	ILM Project Revolving Fund for Credit
PT	Participants
PWS	Participatory Watershed Management
PWSM	Participatory Watershed Management Program, NWFP, Pakistan
SF	Social Forestry
UC	Union Council (administrative sub unit at lower level)
VO/ VDC	Village Organization/ Village Development Committee
WO	Women Organization